



FEMA

Firehouse No. 1 Sets a New Standard in Charlotte County

Port Charlotte, FL - On August 13, 2004, Hurricane Charley intensified, veered from its predicted course, and smashed into Charlotte County at the mouth of the Peace River.

Located north of the river on US 41, was Firehouse No.1. Winds in excess of 140 miles per hour (mph), with gusts up to 180 mph, tore bay doors from their rails and ripped the roof from its rafters. Dumpsters were airborne and sheared the air conditioning compressors and generators from their pedestals. There was also a power failure. The building itself suffered more than a 75-percent loss.

Reflecting on the \$17.8 million in damages to the County's public facilities and lost equipment, Chief Didio vowed, "We won't let this much devastation happen to us again."

The Board of County Commissioners agreed with the Chief's resolve to rebuild stronger. Encouraged by its team of designers, facility and project managers, and consultants, the Board voted to exceed the 130 mph codes required in Charlotte County when rebuilding all critical facilities.

Before Charley struck, the County budgeted \$1.5 million to construct a new facility for Firehouse No. 1. With the new dedication to implement above-code construction, the Board added \$449,500 for hardening measures.

The project team, commissioners, and county residents watched excitedly as the new station rose from the rubble. Oversized steel support beams seated eight-feet deep in concrete footings frame the building. Solid concrete blocks form the lower half of the building, with concrete walls poured on top. A seamless metal roof with rafters set 12-inches on center, instead of the standard 16-inches, crowns the structure. The women's locker room was designed to also serve as a saferoom, and features solid concrete block walls and an 8-inch-thick poured concrete ceiling.

To strengthen the building envelope, workers installed high-impact glass in windows and doors and provided Kevlar® screens for the bay doors. The design also called for installing hurricane shutters on the windows. Outside, the compressors and generator were protected with debris fences, and containment walls were built around the generator and dumpster.

The County's building codes require new construction to meet Base Flood Elevation (BFE) requirements; critical areas of the new Firehouse No.1, the living space, the kitchen, and locker and radio rooms were elevated three feet above the BFE. Buildings constructed to this standard are expected to sit above the floodwater and avoid damage during all but the most severe inundations. Outside, the air conditioning compressors and generators were raised on elevated pads.



Charlotte County,
Florida



Quick Facts

Year:

2004

Sector:

Public

Cost:

Amount Not Available

Primary Activity/Project:

Elevation, Structural

Primary Funding:

Local Sources